

Title (en)

METHOD AND SYSTEM FOR PROVIDING NEUROMODULATION

Title (de)

VERFAHREN UND SYSTEM ZUR BEREITSTELLUNG VON NEUROMODULATION

Title (fr)

PROCÉDÉ ET SYSTÈME DE FOURNITURE DE NEUROMODULATION

Publication

EP 3888737 A1 20211006 (EN)

Application

EP 20167870 A 20200403

Priority

EP 20167870 A 20200403

Abstract (en)

A system (10) for neuromodulation, at least comprising:- A timeline definition module (12) configured to define a timeline in which neuromodulation may be provided;- A timeline dividing module (14) for divide the timeline into a series of time slots;- several neuromodulation entities (16), each entity (16) being capable to claim at least one slot exclusively for providing neuromodulation.The invention further relates to a method for neuromodulation.

IPC 8 full level

A61N 1/36 (2006.01); **A61N 1/04** (2006.01)

CPC (source: EP US)

A61N 1/36062 (2017.07 - EP US); **A61N 1/36128** (2013.01 - EP); **A61N 1/36167** (2013.01 - EP); **A61N 1/36171** (2013.01 - US); **A61N 1/0456** (2013.01 - EP); **A61N 1/36071** (2013.01 - EP); **A61N 1/36189** (2013.01 - EP)

Citation (applicant)

- US 2011054568 A1 20110303 - LANE COURTNEY [US], et al
- US 8543200 B2 20130924 - LANE COURTNEY [US], et al
- US 8768481 B2 20140701 - LANE COURTNEY [US]
- US 4398537 A 19830816 - HOLMBO DWIGHT N [US]
- US 2011160810 A1 20110630 - GRIFFITH PAUL JAMES [US]
- COURTINE G ET AL.: "Transformation of nonfunctional spinal circuits into functional states after the loss of brain input", NATURE NEUROSCIENCE, vol. 12, 2009, pages 1333 - 1342, XP055080636, DOI: 10.1038/nn.2401
- WENGER N ET AL.: "Spatiotemporal neuromodulation therapies engaging muscle synergies improve motor control after spinal cord injury", NATURE MEDICINE, vol. 22, 2016, pages 138 - 145
- CAPOGROSSO M ET AL.: "A Computational Model for Epidural Electrical Stimulation of Spinal Sensorimotor Circuits", JOURNAL OF NEUROSCIENCE, vol. 33, no. 49, 4 December 2013 (2013-12-04), pages 19326 - 19340, XP055479489, DOI: 10.1523/JNEUROSCI.1688-13.2013
- WENGER N ET AL.: "Closed-loop neuromodulation of spinal sensorimotor circuits controls refined locomotion after complete spinal cord injury", SCIENCE TRANSLATIONAL MEDICINE, vol. 6, no. 255, 2014, XP055410746, DOI: 10.1126/scitranslmed.3008325

Citation (search report)

- [X] US 2011054570 A1 20110303 - LANE COURTNEY [US]
- [A] US 2011054567 A1 20110303 - LANE COURTNEY [US], et al
- [A] US 2014005753 A1 20140102 - CARBUNARU RAFAEL [US]

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

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DOCDB simple family (application)

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